

United States Environmental Protection Agency

Region 5

Air and Radiation Division

77 West Jackson Boulevard

Chicago, IL 60604-3590

DATE: DEC 03 2013

SUBJECT: Unannounced Inspection of ADM
Sullivan, Indiana

FROM: Jennifer A. Wilson P.E., Environmental Engineer
Air Enforcement and Compliance Assurance Section (IL/IN)

THRU: Nathan A. Frank, P.E., Chief 
Air Enforcement and Compliance Assurance Section (IL/IN)

TO: File

Facility: ADM grain elevator

Location: Sullivan, Indiana

Inspection Date: September 4, 2013

Inspection Team: Jennifer Wilson, P.E. EPA Region 5
Katy Bellairs, EPA Region 5
Andrea Alltop, IDEM

Facility Attendees: Matthew Briscoe, Plant Manager
Josh Schmidt, Superintendent

Purpose of Inspection

EPA inspected this Facility because the Agency received complaints from a nearby resident about particulate matter pollution from the elevator.

Overview of Regulations

All grain elevators in Indiana are subject to the opacity requirements of the Indiana SIP at 326 IAC 5-1-2. This section of the SIP states that the opacity shall not exceed an average of 40% during any one six minute averaging period. In addition, the Facility may not exceed an average of 60% for more than a cumulative total of fifteen minutes (sixty readings) or fifteen one minute nonoverlapping integrated averages for a continuous opacity monitor in a six hour period. Sources or facilities located in the areas listed in 326 IAC 5-1(c) must meet other more stringent opacity limits, but this facility is not located in those areas. In addition, grain elevators are subject to 326 IAC 6.5-1-2 which states that elevators must "provide for housekeeping and

maintenance procedures that minimize the opportunity for particulate matter to become airborne and leave the property.” Areas to be swept and maintained include floors, decks, hopper areas, loading areas, dust collectors, all areas of dust or waste concentrations, grain driers, general grounds, and other open areas. Cleanings and other waste material shall be handled such that it does not generate fugitive dust and dust from roads and other areas of travel shall be controlled. Accidental spills and accumulations must be cleaned up as soon as possible, but no later than the close of business for that day. Elevators that have more than 2.5 million bushels of storage are subject to NSPS DD for Grain Elevators and must perform opacity testing of certain process units and meet certain emission standards.

Opening Conference:

Katy Bellairs, Andrea Alltop, and I arrived at the ADM grain elevator (Facility) in Sullivan, IN about 3:15 P.M. on September 4, 2013. As we pulled up to the Facility, we saw a truck being loaded with grain. Ms. Bellairs walked towards it and started doing a Method 9 opacity reading. While doing the reading, an employee of the Facility approached Ms. Bellairs and asked her what she was doing. She explained that she was watching the process and trying to do a Method 9 reading. Ms. Bellairs was unable to complete a full six minute reading because the Facility stopped loading the truck less than six minutes after she started reading. However, there were significant emissions during the loading process as shown in Figures 1 and 2. Emissions were being emitted from the distributor during the loading process as well.

After the process was completed, we met with Mr. Matthew Briscoe by the area where the truck had loaded. He asked who we were. We showed him our credentials and told him we were U.S. EPA and we were there to do a Clean Air Act inspection. We told him that we had received a complaint about particulate matter pollution from a resident that lives by the facility. We asked him if we could do a tour of the Facility. Mr. Briscoe said we needed to sign in. We went in the office, signed in, and he said he had to call his manager, Mr. Josh Schmidt, the Superintendent. Mr. Schmidt said he wanted him to come on the inspection with us. I asked Mr. Briscoe where his manager was and he said he would be there soon. After waiting another ten minutes, I told Mr. Briscoe we had to start the tour and Mr. Schmidt would have to join us when he arrived. Mr. Briscoe agreed and he said they would not be receiving any more trucks that day.

Tour:

Mr. Briscoe, Ms. Bellairs, Ms. Alltop, and I went on the tour. Mr. Schmidt joined us when he arrived. During the tour we observed the following:

- The facility was not operating during the time of the inspection with the exception of the truck that was loaded when we arrived.
- Piles of loose grain were scattered on the floor and yard of the Facility.
- There were visible road dust emissions in the parking lot as a truck drove away from the Facility.
- Residents' homes are adjacent to the Facility. A representative of the Facility said the Facility has received complaints about particulate matter pollution from some of the residents.

Other pictures taken during the tour are on the G drive.

Facility Operations:

I told the facility representatives that they should let us know if any information the company provides is considered Confidential Business Information (CBI). The company did not claim anything to be CBI. Then, the representatives answered many questions we asked them about the Facility. They explained the processes at the Facility as follows:

General Information

The grain elevator was built in the 1950's or 1960's. ADM bought the elevator from Johnson Feed Mill and Grain in 1996.

The Facility processes corn, soybeans, and wheat. The facility processes approximately 3.5 million bushels of grain a year. The grain is received via trucks, is possibly dried, is stored, and then is shipped via truck or rail.

Harvest is about two weeks behind this year. The corn harvest started south of this area about two weeks before the inspection.

There are eight full time employees and one part time employee at this location and over 30,000 full time employees in the company. Mr. Briscoe has been the Plant Manager at this Facility for one year. Operating hours during harvest are varied and can be up to 12 to 16 hour days during the week as well as time during the weekend. For the rest of the year, the operating hours are 7:30 A.M. to 4:00 P.M. Monday through Friday.

Dump Pits

There are three dump pits at the Facility and the Facility only receives grain by truck. The dump pits are referred to as the South, North, and East Pits. None of the dump pits have baghouses and the North Pit is the only dump pit with a door, but the door is not put down when trucks are dumping grain. The South Pit and the East Pit were installed prior to 1996. The North Pit was installed after 1996, but the Facility representatives were not sure when. An employee of the Facility estimated that the Facility receives about 40% dump trucks and 60% hopper bottom trucks.

Internal Transferring Area

The internal transferring portion of the Facility consists of conveyors carrying the grain from the dump pits to the dryer or storage bins, from the dryer to the storage bins, and from the storage bins to the loadouts. Some conveyors at the Facility are not enclosed. These include conveyors on bins 14, 15, and 16. The internal transferring area does not have any air pollution control equipment.

Dryers

There is one Zimmerman column dryer at the Facility and it was built before 1996. It processes about 3,000 bushels/hour and its inlet and outlet are enclosed. The Facility has only dried corn and wheat. A representative of the Facility estimated that the Facility dried about 500,000 bushels two years ago and about 300,000 to 400,000 bushels one year ago.

Separating the Grain

The Facility does not separate grain.

Storage Units

The Facility can hold approximately 2.2 million bushels. Of that amount, 488,231 bushels can be held in a large polyethylene ring that was built 10 years ago. The polyethylene ring is unloaded one time per year.

Loadout Area

There is only one loadout and it is able to load trucks and railcars. This loadout has a baghouse, but we observed significant emissions of particulate matter while a truck was being loaded despite the fact that the baghouse was operating. There is also a sock on the loadout and a representative of the Facility said it extends six inches into the vehicles while they are being loaded. We were not standing close enough to the loadout while the truck was being loaded to determine if this is correct. When I asked the representatives how much of the grain is shipped by rail and how much of it is shipped by truck, a representative of the Facility said it varies. Some years 80% is shipped by rail and other years 5% is shipped by rail. ADM plans to add a truck loadout in the East Pit.

Yard of the Facility and Housekeeping

There were some piles of grain particles scattered on the yard and floors of the Facility. The Facility has a housekeeping checklist and the employees complete it daily. The Facility also has a weekly log for checking the loadout sock.

Most of the parking areas and driveways at the Facility are paved, but there is some gravel. The Facility uses soy based oil biweekly on the gravel areas to prevent dust. The average number of trucks received per day during harvest is usually somewhere between 70 to 80 trucks.

Air Permits, Emission Records and Opacity Testing

The Facility has a Minor Source Operating Permit from the Indiana Department of Environmental Management (IDEM). The Facility does not have any PM emission records or opacity tests.

A representative of the Facility reads the pressure gauge of the baghouse daily. If the gauge is over 4.0, the bags in the baghouse are changed. The bags are also changed if emissions are coming out the stack of the baghouse.

Closing Conference:

After the meeting we had a closing conference. We mentioned that we may need to send the Facility an information request in order to obtain more information and we thanked them for their time. We concluded the inspection in the early evening.

Attachments:

Figures 1 and 2 on pages 6 and 7

Figure 1: Visible emissions and a lot of opacity were seen as a truck was loaded with grain.



Figure 2: Another picture of the truck being loaded with grain.



Standard bcc's:

Official File Copy w/Attachment(s)

Originating Organization Reading File w/Attachment(s)

Other bcc's:

Jennifer Wilson, AE-17 J

File Room

C:\Documents and Settings\jwilso02\My Documents\Grain
Elevators\